

1    **ABSTRACT**

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3    'Improved Valve'

(Figure 1)

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5    A valve for use in a downhole tool The valve has an inlet  
6    communicating with the work string from which it is  
7    anchored. The inlet provides a flow path of a first  
8    cross-sectional area. A sealing assembly comprising a  
9    spring biased seal cap moves within an outer tubular body  
10   to open and close a number of ports arranged through the  
11   body. The ports provide a flow path of a combined cross-  
12   sectional area greater than the first cross-sectional  
13   area and the valve is arranged such that fluid flow  
14   through the inlet moves the seal cap to open the valve  
15   and create an unimpeded flow path between the inlet and  
16   the ports with negligible pressure drop. An embodiment  
17   including a shear ring is described to facilitate  
18   pressure testing above. A further embodiment includes a  
19   load adjuster to assist in closing the valve. The valve  
20   can be a high lift injection valve.

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